In the Specification:

ABSTRACT OF THE INVENTION

~~Disclosed is a~~ A method of indexing a database of documents, ~~comprising~~ by providing a vocabulary of n terms, indexing the database in the form of a non-negative n x m index matrix V, wherein each of its m columns represents an jth document having n entries containing a function of the number of occurrences of a ith term of said vocabulary appearing in said j^{th} document, factoring out non-negative matrix factors T and D such that $V \approx TD$, and wherein T is an n x r term matrix, D is an r x m document matrix, and $r < nm/(n+m)$. The index so generated is useful in two-pass information retrieval systems.